

Summer Independent Learning

Subject/Group	AAQ Extended Certificate in Health and Social Care (Y12-Y13)
Topic	Human Biology and Health
Hours	5 hours
To be completed by	This work must be completed and handed in to your subject teacher on the first day of term.

Background Information/Context

In this unit, you will explore the structure and function of the human body and how different body systems work together to maintain health. You will learn about cells, tissues, organs, and organ systems, and how they contribute to normal physiological functioning.

You will develop knowledge of key processes such as respiration, energy metabolism, and homeostasis, before focusing on major body systems including the cardiovascular, respiratory, and endocrine systems. You will also examine how common disorders, such as coronary heart disease and diabetes, can disrupt normal body functioning and impact overall health.

This unit provides essential knowledge for understanding how the human body works and how illness affects individuals, supporting progression into a wide range of health and social care careers.

This unit will be externally assessed through a 90-minute exam in January 2027.

****If you have difficulty in accessing IT resources to produce this work, you may complete it by hand, making sure you write clearly and neatly.**

Use reliable and valid sources for your research – **DO NOT use AI and DO NOT copy information directly from a website – this is plagiarism.**

Task 1: Explaining body systems in practice

Scenario: You are working in a health or social care setting. A service user has asked you to explain how different body systems work and why they are important. You are therefore required to create a communication resource such as a presentation or a detailed leaflet or poster (per body system) that explains the structure and function of these body systems for a non-specialist audience.

You **must** include the following body systems: lymphatic system, endocrine and renal systems, immune system, and the respiratory system.

You **could also** include the following body systems: nervous system, musculoskeletal system, digestive system, cardiovascular system

For each body system, you need to include:

1. Structure and Function

- Identify the main organs/components of the system
- Explain its key functions
- Describe how the system works (processes explained clearly)

2. Application to Health and Care

- Explain why this system is important for maintaining health
- Link the system to a real-life health condition (e.g., asthma, diabetes, heart disease)
- Describe how the condition affects the system

3. Interdependence

- Explain how your chosen system works with at least one other body system

4. Health Promotion

- Provide practical advice on how individuals can maintain a healthy system

Task 2: Homeostasis

Homeostasis keeps the body's internal conditions constant, so cells can function normally and avoid damage.

Negative feedback is a control process that keeps a mechanism in the body, like temperature, within a set range. When a change in the condition is detected, it triggers a response that reverses the change and restores the condition to its normal level.

Produce **THREE** separate negative feedback loops on the following:

- Thermoregulation
- Osmoregulation
- Blood glucose regulation

Learning Resources

Pearson and Tutor2u have produced several learning resources which will be useful for you. They have textbooks and revision guides designed to help you complete the course and achieve success in the exams and coursework. The resources include:

- Pearson Level 3 Alternative Academic Qualification BTEC National in Health and Social Care (Extended Certificate) Student Book

ISBN:9781292487083

- BTEC AAQ National Extended Certificate in Health & Social Care Unit 2 Human Biology & Health Knowledge Book

Publisher: Tutor2u

SKU: 14-4130-30699-03

- Unit 2 Human Biology & Health Exam Skills Book for AAQ BTEC National in Health & Social Care

Publisher: Tutor2u

SKU: 14-4130-30705-03